



## SEQUENCE LISTING

<110> WEIDANZ, JON A.  
CARD, KIMBERLYN F.  
WONG, HING C.

<120> FUSION PROTEINS COMPRISING BACTERIOPHAGE COAT PROTEIN  
AND A SINGLE-CHAIN T-CELL RECEPTOR

<130> 46745 (1758)

<140> 08/813,781  
<141> 1997-03-07

<160> 130

<170> PatentIn Ver. 2.1

<210> 1

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 1

cggccatggc ccagctgcag actagtgc

RECEIVED  
JAN 22 2002  
TECH CENTER 1600/2900

28

<210> 2

<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 2

ggccgcacta gtctgcagct gggccatggc cggct

35

<210> 3

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 3

ctcgcgcccc agccggccat ggccgaggct gcagtcaccc aaagc

45

<210> 4

<211> 32

<212> DNA

<213> Artificial Sequence

```

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 4
      ctccctcact agtacagtct gctcgcccc ag          32

<210> 5
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 5
      gatggcctcg aggagcaggt ggagcagctt          30

<210> 6
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 6
      gactagcccg ggacagggaa cgtctgaact ggg          33

<210> 7
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 7
      ctcgcggccc agccggccat ggccgagcag gtggagcagc ttcct          45

<210> 8
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 8
      ctcgcgtcgtc agggaggctgc agtcacccaa agc          33

```

<210> 9  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 9  
ctcgccccg ggacagtctg ctcggccca ggc 33

<210> 10  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 10  
ctcgcacta gtacagggaa cgtctgaact ggg 33

<210> 11  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 11  
ctcgccccg gggctctgctc ggccccaggg 30

<210> 12  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 12  
ctcgcacta gtgggaacgt ctgaactggg 30

<210> 13  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 13	
ctcgcgacta gtgtctgctc ggccccaggg	30
<210> 14	
<211> 30	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
oligonucleotide	
<400> 14	
ctcgcgcccg gggggAACGT ctgaactggg	30
<210> 15	
<211> 34	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
oligonucleotide	
<400> 15	
ctcgcgctcg agcgaggctg cagtcacccca aagc	34
<210> 16	
<211> 37	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
oligonucleotide	
<400> 16	
ggggggcccg gggctgaggg tgacgatccc gcaaaag	37
<210> 17	
<211> 67	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
oligonucleotide	
<400> 17	
ctagtctgggt ggcgggtggca gcggcggtgg tggttccgggt ggcggcggtt ctggcggtgg	60
cggttcc	67
<210> 18	
<211> 67	
<212> DNA	
<213> Artificial Sequence	

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 18  
tcgaggaacc gccaccgcca gaaccgccc caccggaacc accaccgccc ctgccaccgc 60  
caccaga 67

<210> 19  
<211> 37  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 19  
gtgctcacta gtgttggct ctacagttag tttggtg 37

<210> 20  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 20  
gatggctcga gtgagcaggt ggagcagtt cct 33

<210> 21  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 21  
ctagtcccg ggtacaactg tgagtctggt tcc 33

<210> 22  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 22  
ctcgagacta gttacaactg tgagtctggt tcc 33

```

<210> 23
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 23
cgggcgagga agaagagtac atcccgatgg atc          33

<210> 24
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 24
gggccatcca tcgggatgta ctcttcttcc tcggccggct          40

<210> 25
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 25
ccggggagga agaagagtac atcccgatgg attgag          36

<210> 26
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 26
aattctcaat ccatcgggat gtactcttct tcctcc          36

<210> 27
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

```

<400> 27	
gccccgggact agtgc	15
<210> 28	
<211> 23	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
oligonucleotide	
<400> 28	
ggccgcacta gtcccggtc gca	23
<210> 29	
<211> 75	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
oligonucleotide	
<400> 29	
ctagtccccc ggtcatcaag cggcgccccc catcgccatg tactcttctt cctctacaac 60	60
tgtgagtcgt gttcc	75
<210> 30	
<211> 72	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
oligonucleotide	
<400> 30	
ctagtccccc ggtcatcaag cggcgccccc catcgccatg tactcttctt cctcgctgc 60	60
tcggccccag gc	72
<210> 31	
<211> 33	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
oligonucleotide	
<400> 31	
ctagtccccc ggtacaactg tgagtctgg tcc	33
<210> 32	
<211> 45	

```

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 32
ccggggagga agaagagtac atgccgatgg aaggcgccgc ttagc          45

<210> 33
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 33
cctccttctt ctcatgtacg gctaccttcc gcggcgaatc gggcc          45

<210> 34
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 34
gatcagcccg gggaggctgc agtcacccaa agc                      33

<210> 35
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 35
ctagtcccccgg gacacagtctg ctcggcccca ccg                      33

<210> 36
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 36
ccggggagga agaagagtac atgccgatgg aaggcgccgc tc          42

```

```

<210> 37
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 37
cctccttctt ctcatgtacg gctaccttcc gcggcgaggg cc           42

<210> 38
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 38
cgccgctcac catcaccatc atcactgtatg ac           32

<210> 39
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 39
ggcgagtgggt agtggtagta gtgactactg ggcc           34

<210> 40
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 40
gatcaggggcg ccgctactgt tgaaagttgt tta           33

<210> 41
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic

```

oligonucleotide

<400> 41  
ctgatcgat cctcattaaa gccagaatgg aaa 33

<210> 42  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 42  
ccgggctaag cggcgccatc catcgccatg tactttttt cctcc 45

<210> 43  
<211> 42  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 43  
ccgggagccg cgccttccat cggcatgtac tctttttcc cc 42

<210> 44  
<211> 28  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 44  
ccgggtcatc agtcatgtatg gtgagccg 28

<210> 45  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 45  
gctcgagctt actcc 15

<210> 46  
<211> 14  
<212> DNA

<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
oligonucleotide	
<400> 46	
cgctcattag gcgg	14
<210> 47	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
oligonucleotide	
<400> 47	
gtgtacttct gtgcc	15
<210> 48	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
oligonucleotide	
<400> 48	
ctgtgagttc ggttc	15
<210> 49	
<211> 15	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
oligonucleotide	
<400> 49	
gcagggttctg ggttc	15
<210> 50	
<211> 17	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: synthetic	
oligonucleotide	
<400> 50	
catttactaa cgtctgg	17

<210> 51  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 51  
cgccctggtag tgagc 15

<210> 52  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 52  
cctcaacctc ctgtc 15

<210> 53  
<211> 16  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 53  
cttattccgt ggtgtc 16

<210> 54  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 54  
ccaccctcag aaccg 15

<210> 55  
<211> 16  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 55  
gaatttacccg ttccag 16

<210> 56  
<211> 16  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 56  
ctttagcgtc agactg 16

<210> 57  
<211> 16  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 57  
gaaacgcaaa gacacc 16

<210> 58  
<211> 39  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 58  
ggggggcccg ggctgctgag ggtgacgatc ccgc当地 39

<210> 59  
<211> 39  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 59  
gggggggaat tctattagct tgcttcgag gtgaatttc 39

<210> 60  
<211> 41  
<212> DNA  
<213> Artificial Sequence

```

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 60
      gagcacggcc cagccggcca tggccgaggc tgcagtcacc c           41

<210> 61
<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 61
      gagcacgaga ctagtagcac gaacaacacg gtcgtcgatc ggttccggcg ggtttggctc 60
      tacagttag           69

<210> 62
<211> 86
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 62
      gatccctct ggacacgcag gatggaagga agctgctcca cctgctcagc acgaacaaca 60
      cggtcgtcga tcggttccgg cggggc           86

<210> 63
<211> 86
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 63
      catggccccc cccggaaaccga tcgacgaccg tggtttcgt gctgagcagg tggagcagct 60
      tcctcccatc ctgcgtgtcc aggagg           86

<210> 64
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: synthetic
      oligonucleotide

<400> 64

```

gaggtggaat tctattaaga ctccttatta cgcagtatg

39

<210> 65  
<211> 60  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 65  
gaggaggtgg tgactagtag caggttctgg tgggttctgg atgtttggct ctacagttag 60

<210> 66  
<211> 57  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 66  
gaggaggtgg tgactagaag caggttctgg gttctggatg tttggctcta cagttag 57

<210> 67  
<211> 51  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 67  
gaggtggaat tctattatgt atgatggtga tggtagact ctttattacg c 51

<210> 68  
<211> 32  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 68  
gaggtgcccc ggactgttga aagttgttta gc 32

<210> 69  
<211> 49  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 69

gaggtggaaat tctatttagtg atgatggtga tggtggcttg ctttcgagg

49

<210> 70

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 70

gaggtggaaat tctatttagct tgctttcgag g

31

<210> 71

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 71

gaggtgccccg gggctgaggg tgacgatccc g

31

<210> 72

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 72

aattctcatc agtgatgatg gtgatggtgc

30

<210> 73

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 73

ccggggcacca tcaccatcat cactgatgag

30

<210> 74

<211> 56

<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 74  
gtggagcccc ggttccatcg gcatgtactc ttcttcctct acaactgtga gtctgg 56

<210> 75  
<211> 64  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 75  
gaggtgaaat tctcacccgg gttccatcg catgtactct tcttcctcgt ctgctcggcc 60  
ccag 64

<210> 76  
<211> 61  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 76  
gaggtgctgc aggttccatc ggcatgtact ctttttcctc gtctagacgg ccccaggcct 60  
c 61

<210> 77  
<211> 34  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 77  
gtggagctgc aggttctaga cggccccagg cctc 34

<210> 78  
<211> 59  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 78  
gtggagctgc aggtgatcca cccccctccag atccacccccc tccgtctgct cggcccccag 59

<210> 79  
<211> 32  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 79  
gtggagaagc tttgccgagc aggtggagca gc 32

<210> 80  
<211> 34  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 80  
gggggggagg tgctggagcg aggcagcagt cacc 34

<210> 81  
<211> 35  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 81  
gagcccacta gtttggctct acagtgagtt tggtg 35

<210> 82  
<211> 65  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 82  
ctagaccagc aaatctgcac ccacagaatc cctaggacag ctcccagggtt cctctgcatt 60  
gtgga 65

<210> 83  
<211> 65  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 83  
agcttccacc atgcagagga acctgggagc tgtcctaggg attctgtggg tgcagattt 60  
ctggt 65

<210> 84  
<211> 35  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 84  
gatcggtcta gaggtgagca ggtggagcag cttcc 35

<210> 85  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 85  
gcctggagac tcagccatg 19

<210> 86  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 86  
gaagtagatg gctgagtc c 21

<210> 87  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 87  
gatgaacgtt ccagattcca tgg 23

<210> 88  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 88  
cccaaatcaa tgtgccgaaa ac 22

<210> 89  
<211> 53  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 89  
ctagaacaca ggagactgga gagcacgaag aagagcctgg agcccatggt gga 53

<210> 90  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 90  
gcttccttg taggcctgag 20

<210> 91  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 91  
gtacttctgt gccagcggtg 20

<210> 92  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 92  
gagcaattat agctactgcc tg 22

<210> 93  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 93  
ggtctggagg ccttgtatcc 20

<210> 94  
<211> 53  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 94  
agcttccacc atgggctcca ggctcttctt cgtgctctcc agtctcctgt gtt 53

<210> 95  
<211> 65  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 95  
tcgaggaacc gccacccgcca gaaccgcccgc caccggaaacc accacccgcccctgcacccgc 60  
cacca 65

<210> 96  
<211> 65  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 96  
ctagtggtgg cgggtggcagc ggcgggtggtg gttccgggtgg cggcggttct ggcgggtggcg 60  
gttcc 65

<210> 97  
<211> 8

<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 97  
ccaccatg 8

<210> 98  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 98  
Glu Glu Glu Glu Tyr Met Pro Met Glu  
1 5

<210> 99  
<211> 63  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 99  
atgaaataacc tgctgccgac cgcagctgct ggtctgctgc tgctggcgcc ccagccgatg 60  
gcc 63

<210> 100  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 100  
Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Leu Leu Leu Leu Ala Ala  
1 5 10 15

Gln Pro Ala Met  
20

<210> 101  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 101  
gcccggccatg qccrqtgctg tcrtctctc

29

<210> 102  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 102  
gcccggccatg gccgamrccm argtsaccc

29

<210> 103  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 103  
gcccggccatg gccgatgtga aagtaaccc

29

<210> 104  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 104  
gcccggccatg gccgamrcwg mcrtytmcc

29

<210> 105  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 105  
gcccggccatg gccarkgctg gdgtcactc

29

<210> 106

<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 106  
gccggccatg gccaa atgccc gcgtcatgc 29

<210> 107  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 107  
gccggccatg gccgrtrctg gagtctccc 29

<210> 108  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 108  
gccggccatg gccgatgctr gartcaccc 29

<210> 109  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 109  
gccggccatg gccgattctg gagtcacac 29

<210> 110  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 110

gccggccatg gccgaygctg gwgttatcc

29

<210> 111  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 111  
gccggccatg gccgatgctg ryrttaycc

29

<210> 112  
<211> 31  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 112  
gccggccatg gccgaagctg gagttactca g

31

<210> 113  
<211> 36  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 113  
gccggccatg gccgatgcta ctattcatca atggcc

36

<210> 114  
<211> 31  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 114  
gctgccacccg ccacccaccc ttgttcaggcc c

31

<210> 115  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 115  
gctgccacccg ccacccacgt tttcaggtcc 30

<210> 116  
<211> 34  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 116  
ggaggcggcg gttctgctaa gagaccacmc agcc 34

<210> 117  
<211> 34  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 117  
ggaggcggcg gttctcagaa grtaactcaa rcsc 34

<210> 118  
<211> 31  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 118  
ggaggcggcg gttctcagtc kgtgasccag c 31

<210> 119  
<211> 32  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 119  
ggaggcggcg gttctcagag agtgactcag cc 32

<210> 120  
<211> 35

<212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: synthetic  
 oligonucleotide  
  
 <400> 120  
 ggaggcggcg gttctcwgma sgtgraacaa rgtcc 35

<210> 121  
 <211> 35  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: synthetic  
 oligonucleotide  
  
 <400> 121  
 ggaggcggcg gttctcagca agttaagcaa aattc 35

<210> 122  
 <211> 34  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: synthetic  
 oligonucleotide  
  
 <400> 122  
 ggaggcggcg gttctgagar tgtggrrgcwg catc 34

<210> 123  
 <211> 35  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: synthetic  
 oligonucleotide  
  
 <400> 123  
 ggaggcggcg gttctaakga rgtggmrgcag rrtyc 35

<210> 124  
 <211> 32  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: synthetic  
 oligonucleotide  
  
 <400> 124  
 ggaggcggcg gttctcagct gctggagcag ag 32

<210> 125  
<211> 35  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 125  
ggaggcggcg gttctcaama grkagaasag ratyc 35

<210> 126  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 126  
ggaggcggcg gttctggaca aarcmttgar cag 33

<210> 127  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 127  
ggaggcggcg gttctaaagga ccaagtgttt cag 33

<210> 128  
<211> 29  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic  
oligonucleotide

<400> 128  
ttcatagact agtagggtca gggttctgg 29

<210> 129  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: synthetic

## oligonucleotide

&lt;400&gt; 129

ggtggcggtg gcagcggcgg tggtggttcc ggaggcggcg gttct

45

&lt;210&gt; 130

&lt;211&gt; 47

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: antisense  
synthetic oligonucleotide

&lt;400&gt; 130

agaaccggcg cctaccggaa ccaccaccgc ccgctgccac cgccacc

47

F/  
Cont